

## Two newly-recorded species in the genus *Hyalobathra* Meyrick (Lepidoptera: Crambidae: Pyraustinae) from China

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**Abstract:** *Hyalobathra miniosalis* (Guenée, 1854) and *Hyalobathra unicolor* (Warren, 1895) are newly recorded from China. Photographs of adults and illustrations of male genitalia are provided. The specimens are deposited in the Museum of Biology, Sun Yat-sen University except for those in the Insect Collection, College of Life Sciences, Nankai University (NKU).

**Key words:** Ditrysia; Pyraloidea; taxonomy

中国长距野螟属二新纪录种（鳞翅目：草螟科：野螟亚科）

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**摘要：**记述中国长距野螟属 2 新纪录种：红翅长距野螟 *Hyalobathra miniosalis* (Guenée, 1854) 和单色长距野螟 *Hyalobathra unicolor* (Warren, 1895)。提供了成虫和雄性外生殖器特征图。研究标本保存于中山大学生物博物馆和南开大学昆虫标本馆。

**关键词：**双孔次亚目；螟蛾总科；分类

### Introduction

*Hyalobathra* Meyrick, 1885 is distributed mainly in the Palaearctic, the Ethiopian, the Oriental and the Australian regions. Species of *Hyalobathra* can be recognized by the transparent window at the base of the hindwings; sternite 8 in male with antero-lateral processes and with postero-lateral corners produced into small lobes; tergite 8 in male with antero-lateral processes; uncus usually bifid distally, valva folded longitudinally, extremely complex: with lobe-shaped editum and sella bearing with thick setae, and sella with a strongly sclerotized, long arrow-shaped process near tip; sacculus wrinkled transversely, with dense long scales along saccular margin.

To date, 24 *Hyalobathra* species have been described in the world. Six of them have been recorded in China: *Hyalobathra aequalis* (Lederer, 1863), *H. coenostotalis* (Snellen, 1890), *H. illectalis* (Walker, 1859), *H. intermedialis* Caradja, 1939, *H. micralis* Caradja, 1932, and *H. opheltesalis* (Walker, 1859). In this study, we record two species new to China based on the specimens collected in Hainan and Yunnan.

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## Material and methods

This study is based on the examination of the specimens collected using light traps. Terminology of the genitalia follows Marion (1952, 1961) and Maes (1994, 1995). Genitalia dissection and mounting methods follow Li & Zheng (1996).

## Taxonomy

### 1. *Hyalobathra miniosalis* (Guenée, 1854) (Figs. 1, 3), new record to China

*Ebulea miniosalis* Guenée, 1854: 362.

*Ebulea europsalis* Walker, 1859: 749.

*Ebulea orseisalis* Walker, 1859: 749.

*Hyalobathra miniosalis* (Guenée): Hampson, 1896: 387.

*Hyalobathra rhodoplecta* Turner, 1937: 76.

Male adult (Fig. 1). Wingspan 22.0–26.0 mm. Frons pale red; vertex yellowish ochreous with reddish tinge. Labial palpus exceeding head by less than length of head, yellowish ochreous with reddish tinge, contrastingly creamy white at base ventrally. Proboscis yellowish ochreous scaled basally. Maxillary palpus very tiny, yellowish ochreous, inconspicuous. Antenna with orange-red scales dorsally. Thorax orange-red dorsally and pale yellow ventrally. Legs pale yellow, with reddish tinge dorsally, mid and hind tibiae with large, spreading scale tuft at base. Wings orange-red, markings reddish orange, thick and blur. Forewing with antemedial line sinuate, from costal 1/5 to dorsal 1/3; reniform stigma line-shaped, outwardly oblique slightly; postmedial line serrate from costal 2/3 arched to middle of CuA<sub>2</sub>, then sinuate to dorsal 2/3; subterminal line serrate, almost parallel with termen. Hindwing with postmedial line and subterminal line similar to forewing. Fringe golden yellow, termen with red basal line. Abdomen pale red dorsally, yellowish ochreous with reddish tinge ventrally.

Male genitalia (Fig. 3). Uncus slender medially, with wide, triangular base and wide, shallowly bifurcate apex. Tegumen and vinculum with dense long hair-like bristles laterally. Transtilla tapering and conjoint. Juxta with anterior part V-shaped, two arms with distal part curved outwardly and apex pointed, posterior part lobe-shaped, deep cleft. Saccus broad and rounded. Valva with editum irregularly folded, lobe-shaped, bearing rows of and clusters of thick setae; sella at end of costa, irregularly folded, bearing clusters of thick setae, with strongly sclerotized, slender, rather long arrow-shaped process with narrowly pointed apex; sacculus wrinkled, densely with very long hairs along basal half of ventral margin and relatively short hairs along distal half of ventral margin, with a thumb-shaped process bearing rows of and clusters of special setae at distal end. Aedeagus shorter than uncus; pistol-shaped, with developed coecum.

**Specimens examined.** 1♂, **China**, Hainan, Wuzhishan, Shuiman, 01-VI-2010, coll. Bingbing HU & Jing ZHANG (NKU); 1♂, Hainan, Wuzhishan, Shuiman, 667 m, 18.52°N, 109.40°E, 06-IX-2013, coll. Xiaohua CHEN, genitalia slide no. LJW12201; 1♂, Hainan, Bawangling, 592 m, 19.05°N, 109.07°E, 09-V-2013, coll. Xiaohua CHEN; 1♂, Hainan, Mt. Diaoluo, 929 m, 18.73°N, 109.87°E, 15-V-2013, coll. Jinwei LI, genitalia slide no. LJW12170; 2♂, Hainan, Mt. Diaoluo, 94 m, 18.40°N, 109.56°E, 16-V-2013, coll. Jinwei LI; 2♂, Hainan, Yinggeling Nature Reserve, 954 m, 19.03°N, 109.30°E, 04-X-2013, coll. Weicai XIE, genitalia

slide no. LJW12213; 1♂, Hainan, Fanjia, Sanya, 302 m, 19.15°N, 109.39°E, 27-X-2013, coll. Xiaohua CHEN & Kai CHEN; 1♂, Yunnan, Xishuangbanna, Mengla, 28-X-2010, coll. Bingbing HU & Jing ZHANG (NKU); 1♂, Yunnan, Mengla, Bubang, Nanla River, 652 m, 21.59°N, 101.58°E, 13-VII-2013, coll. Shurong LIU, Yuqi WANG & Kaijian TENG (NKU).

Diagnosis. *H. miniosalis* is recognised easily by its orange-red ground colour; wings with reddish orange markings, golden yellow fringe with red basal line; window of hindwing cell a narrow transverse streak only in male. In the male genitalia, the uncus apex spatulate, shallowly bifurcate; sacculus with very long hairs along basal half of ventral margin.

Distribution. China (Hainan, Yunnan); Myanmar; Indonesia (Java, Sumatra, Sumba); India; Sri Lanka; Australia; Papua New Guinea.

## 2. *Hyalobathra unicolor* (Warren, 1895) (Figs. 2, 4), new record to China

*Isocentris unicolor* Warren, 1895: 472.

*Hyalobathra unicolor* (Warren): Hampson, 1899: 189.

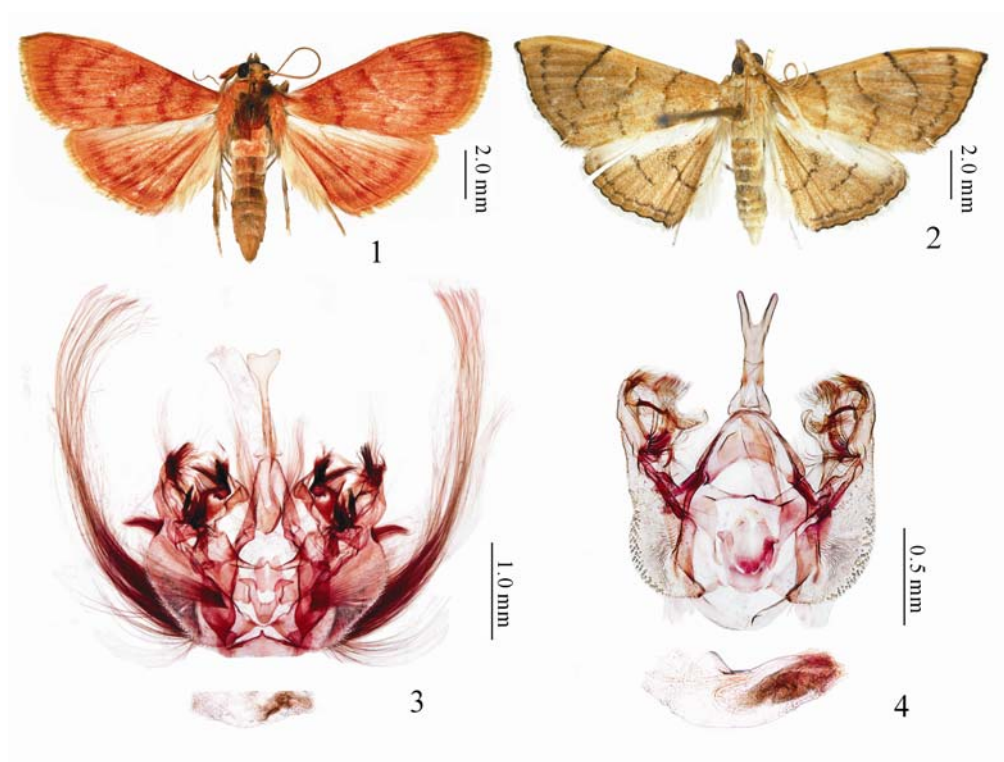
Male adult (Fig. 2). Wingspan 20.0–23.0 mm. Frons ochreous; vertex ochreous. Labial palpus exceeding head by length of head, ochreous, contrastingly creamy white at base ventrally. Proboscis ochreous scaled basally. Maxillary palpus slim, with apex loosely scaled, ochreous. Antenna with ochreous scales dorsally. Thorax ochreous with yellowish tinge dorsally and whitish ventrally. Legs whitish, with pale brown dorsally. Wings ochreous with reddish tinge, markings dark. Forewing with antemedial line arc-shaped, from costal 1/4 to dorsal 1/3; reniform stigma line-shaped, outwardly oblique slightly; postmedial line from costal 3/5 arched to middle of CuA<sub>2</sub>, then sinuate to dorsal 2/3; subterminal line scalloped, almost parallel with termen. Hindwing with postmedial line and subterminal line similar with forewing. Fringe snow-white, with dark basal line. Abdomen ochreous dorsally, pale ventrally.

Male genitalia (Fig. 4). Uncus slender medially, triangular basally, distal 1/3 bifurcate. Tegumen and vinculum sparsely with long hair-like bristles laterally. Transtilla tapering and conjoint. Juxta with anterior part V-shaped, two arms with distal part curved outwardly to rounded apex, posterior part lobe-shaped, shallowly cleft. Saccus broad and round. Valva with editum bilobe-shaped, bearing clusters of special setae; sella at end of costa, triangularly folded, bearing thick setae dorsally, with strongly sclerotized, stout, arrow-shaped process with rounded apex; sacculus wrinkled, with sparse long hairs along half of basal margin, with a low, semicircular process in middle and another low, semicircular process bearing rows of thick setae at distal end. Aedeagus stout, longer than uncus; pistol-shaped, with developed coecum.

**Specimens examined.** 1♂, **China**, Hainan, Mt. Diaoluo, 70 m, 28-V-2007, coll. Zhiwei ZHANG & Weichun LI (NKU), genitalia slide no. LJW12221; 1♂, Hainan, Wuzhishan, Shuiman, 665 m, 18.53°N, 109.40°E, 14-V-2013, coll. Xiaohua CHEN, genitalia slide no. LJW12165.

Diagnosis. *H. unicolor* is similar to *H. illectalis*, with ochreous wings and dark markings, but can be distinguished by its much smaller wingspan (21.0–26.0 mm in *H. unicolor* and 26.0–28.0 mm in *H. illectalis*) and much thicker markings of wings. In the male genitalia, the uncus of *H. unicolor* is much thicker than its congener, distal 1/3 of uncus bifurcate.

Distribution. China (Hainan); Australia.



Figures 1–4. Adults and male genitalia of *Hyalobathra* spp. 1, 3. *H. miniosalis*, genitalia slide no. LJW12213; 2, 4. *H. unicolor*, genitalia slide no. LJW12221.

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